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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/610,239	07/05/2000	Terry A. Johnson	023890-031 (SD-8267)	4991

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EXAMINER
NGUYEN, HUNG

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 05/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/610,239	JOHNSON ET AL.	
	Examiner	Art Unit	
	Hung Henry V Nguyen	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *RCE filed 2/11/2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 11, 2003 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification of the disclosure lacks adequate support for the claimed provision of "wherein each blade does not move relative to the other blades" (see claim 1 and 14). The specification of the instant disclosure is not even remotely related to the newly added limitations to independent claims. The applicant is reminded that when claimed elements that are not clearly discussed in detail, this falls under 112, first paragraph, applicant's disclosure is lacking

in this aspect and for this reason, one having ordinary skill in the art is unable to ascertain the particularities and the highlights of applicant's claimed invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1, 14, the recitation of "wherein each blade does not move relative to each other" is ambiguous and indefinite (see rejection under 35 U.S.C. 112, first paragraph).

Rejection, 35 U.S.C. 102 OR 103(a)

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-2, 11 and 14-15, 24 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCullough (U.S.Pat. 6,097,474).

As best the claimed subject matters are understood (see rejection under 35 U.S.C. 112, first and second paragraphs, supra). Claims are anticipated by references.

With respect to claims 1-2, 11, 14-15, 24, McCullough discloses an exposure device having an illumination system (10) for generating an energy beam and a shutter (20) including a frame (28) defining an aperture and a plurality of rectangular blades which are secured to the frame and parallel to each other (see fig.3) and means for moving the blades to block or to allow the energy beam to travel through the aperture (see col.4, lines 60 to column 6 line 51; and col.13, lines 27-30). McCullough does not expressly disclose "each blade does not move relative to the other blades" as applicant argued, McCullough further teaches "adjustments to the illumination energy are made by moving push rods 34 which displace blades 48 selectively into the illumination energy or flux. Push rods 34 are ***independently*** adjusted by turning nuts 39" (see col.4, lines 52-56 and fig.3). This provides a clear suggestion that it would have been obvious to one having ordinary skill in the art at the time the invention was made to displace each blade independently for adjusting the illumination energy passing through the shutter. In other words, it would have been obvious an obvious matter of design choice to a skilled artisan to move the plurality of blades (48) as taught by McCullough, "where each blades does not move

relative to other blade" for the purpose of varying the illumination energy passing through the shutter thereby providing a proper illumination energy for the exposure device.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 4-9, 12-13 and 17-22, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCullough (U.S.Pat. 5,966,202).

With respect to claims 4-5, 8-9, 12-13, McCullough or Nakamori discloses an shutter for adjusting a beam of radiation in an exposure device comprising all basic structures as set forth in the instant claims as discussed above except for the width of the blade as well as the cross sectional area of the radiation beam or a time period for opening or closing of the blades. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select claimed parameters as specified in the instant claims, since it has been held that where the general conditions of a claim are disclosed in the prior art , discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

As to claims 6-7 and 19-20, McCullough lacks to disclose the material of the blade as claimed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose known materials as specified in claims 6-7 and 19-20 for

making of blade since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCullough (U.S.Pat. 6,097,474) in view of Styrnol et al (U.S.Pat. 6,252,935).

With regard to claim 3, McCullough discloses an exposure apparatus comprising substantially all limitations of the instant claim as set forth above. McCullough does not expressly disclose the drive means for driving the blades including a solenoid which is enclosed in a vacuum case. However, this structure is well known in the art. For instance, Styrnol et al teaches a motor (13) having a rotor /solenoid (16) placed on a vacuum housing (3). This provides a clear suggestion that it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a motor having a solenoid placed in a vacuum housing as taught by Styrnol into the exposure device of McCullough for at least the purpose of preventing the foreign substances discharged from the solenoid being transferred to the shutter blades and thus increasing the accuracy of the shutter device.

Response to Amendment

11. Applicant's amendment filed February 11, 2003 have been entered. Applicant's arguments have been carefully reviewed but have been traversed in view of new grounds of rejections as set forth above.

Prior Art Made of Record

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nixon (U.S.Pat. 4,227,210) discloses radiation shutters.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

hvn 5/13/02

HENRY HUNG NGUYEN
PRIMARY EXAMINER